Language Sciences Pod at COSI
Operated by the Buckeye Language Network

Annual Activity Report
January 2014
Language is a daily part of our lives, and an ideal domain in which to interest people in scientific investigation.

The mission of the Language Sciences Pod at COSI is to use cutting-edge research to excite the public about science and to expand our knowledge about language.

People are fascinated by language. We all use it every day and have extensive personal experience with its many dimensions. We speak, listen, and read; we know the satisfaction of choosing the right word and the frustration when we misunderstand another; we can tell where someone is from by their accent; we watch how our children learn to use word and sentence meanings. These phenomena are what we study at the Language Sciences Pod and form the basis of our informal science education outreach. We use people’s interest and experience with language to teach them how language works and how we study it with the tools of science.

The Language Sciences Pod is located in a permanent, glass-enclosed research space within the Center of Science and Industry (COSI). It is part of the Labs in Life exhibit which provides the public with a research-in-real-time experience: They can watch research happening and even participate in it as a research subject. Staffed by Ohio State University faculty working with graduate and undergraduate students, we conduct state-of-the-art research and engage visitors with interactive activities.
Research Activities

Current research at the Language Sciences Pod includes investigations of how people perceive different regional dialects, process language as they listen to it, and how children learn word meanings.

- Over 20 studies have been conducted by 13 OSU faculty and senior researchers from 5 departments across campus including Psychology, Linguistics, Speech & Hearing Sciences, Spanish & Portuguese, and Music.
- Approximately 1500 COSI visitors have participated as research subjects in the Language Sciences Pod.
- Research findings from this work have been accepted for presentation at premiere venues such as the International Association for the Study of Child Language and the Society for Research in Child Development.

Grant Funding

The Language Sciences Pod has actively sought out grants and supported affiliated researchers in their efforts to obtain research funding.

- The Language Sciences Pod itself has been awarded two grants to promote its mission: A Battelle foundation BETHA grant, and an OSU Engagement Impact Grant.
- Two grants have been awarded to OSU faculty to collect their data at the Language Sciences Pod: A Center for Cognitive and Brain Sciences (CCBS) Seed grant for studying the development of dialect across the lifespan, and a National Science Foundation (NSF) grant looking at computational models of sentence understanding.
- The PI on the NSF grant will also be involved in developing outreach activities with us as part of the broader impacts of his work.
The “Language Pod Class”

The Language Sciences Pod offers the OSU “Training in Informal Science Outreach” course which is cross-listed as Psych/Ling/Edutl 5700.

• Students learn the principles of informal science education and communication and receive specific training in the language sciences.
• Students spend significant time at COSI recruiting participants for research, conducting interactive demonstrations, and getting hands-on experience explaining science to COSI visitors.
• Language Sciences Pod Executive Committee faculty teach the course, allowing us to offer it every semester for graduate and undergraduate students.

Interactive Outreach Activities

The Language Sciences Pod has created more than a dozen interactive demonstrations to inform and engage COSI guests of all ages.

• Visitors can learn how their mouth, face, and throat make the sounds needed for language, see a spectrogram picture of the sounds in their own name, experience the automaticity of reading, and experience word learning from a toddler’s perspective.
• The Language Sciences Pod sponsors language fairs where a team of researchers create outreach activities as part of a unified, specially promoted event.
• Our Outreach Director participated in COSI’s “Portal to the Public” program helping to ensure that our outreach activities are integrated with COSI’s educational priorities.
Synergistic Activities

The Language Sciences Pod has built connections at COSI and across OSU to facilitate our research and outreach mission.

- Through a Global Gateway project, co-directed by our Educational Director, science museum professionals from China visited OSU and COSI for 10 weeks of professional development, including time in the Language Sciences Pod.

- Executive Committee members have organized the Early Childhood Research Forum, a lecture series for COSI staff to connect them to state-of-the-art research on child development.

- With COSI’s little kidspace® area, we have been working to create a set of language oriented “research toys” in the model of the NSF-Funded National Living Labs initiative.

- The Language Sciences Pod has provided help and guidance to several OSU researchers in their efforts to connect with COSI staff and resources, facilitating a range of research activities at COSI beyond the pod exhibit.

- OSU’s Center for Cognitive and Brain Sciences (CCBS) supports our research mission and facilitates connections between the Language Sciences Pod and the OSU cognitive science community through the loan of a Tobii eye-tracker.

- The Language Sciences Pod was a contributing member to the research and outreach components of the CCBS-led Discovery Themes Initiative proposal for a Center for the Integrated Study of Wellbeing.
Language Sciences Pod Executive Committee

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